

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

Project

Date

Author

TITLE

SURVEY OF MOUNTAIN PINE BEETLE
INFESTATION IN WESTERN WHITE PINE
CLEARWATER NATIONAL FOREST

1948

By

A. L. Gibson
Entomologist

Forest Insect Laboratory
Coeur d'Alene, Idaho
February 11, 1949

SURVEY OF MOUNTAIN PINE BEETLE
INFESTATION IN WESTERN WHITE PINE
CLEARWATER NATIONAL FOREST

1948

Survey of the Clearwater National Forest in 1948 was limited to the western white pine stands. Enough strip was run on the various units to determine if more intensive examination was needed. In no case was sufficient infestation found to warrant a more intensive coverage.

The period of the survey was from August 9 to 19th. It is recognized that the period of attack of the mountain pine beetle extends well beyond this period but as the conditions noted were endemic, a correction factor for this discrepancy was unnecessary.

In the following pages the status of the mountain pine beetle is discussed in more detail.

Skull Creek - Quartz Creek

No mountain pine beetle infestation was noted on these two large drainages. Trees off the strip were even examined in the search for any attacks or broods of the mountain pine beetle for 1948, without success. Furthermore, none of the red-top trees examined showed any attacks by the mountain pine beetle in 1947. Data for the area is as follows:

<u>Skull Creek - Quartz Creek Unit</u>	<u>Acres 32,640</u>
Acres of sample	243
Estimated number of infested trees	None

The two members of the crew detailed to this back area examination reported defoliation of about 1- feet of the top of white-bark pine between Wallow Mountain and Collins Creek on trail 290. Their observance of moths resembling the pine butterfly may or may not indicate the insect responsible for the defoliation.

Between Skull Creek and Canyon Ranger Station, along the Clearwater River, many white pine, from reproduction to mature trees, showed discoloration of foliage due to a needle cast.

SURVEY OF MOUNTAIN PINE BEETLE
INFESTATION IN WESTERN WHITE PINE
CLEARWATER NATIONAL FOREST

1948

Survey of the Clearwater National Forest in 1948 was limited to the western white pine stands. Enough strip was run on the various units to determine if more intensive examination was needed. In no case was sufficient infestation found to warrant a more intensive coverage.

The period of the survey was from August 9 to 19th. It is recognized that the period of attack of the mountain pine beetle extends well beyond this period but as the conditions noted were endemic, a correction factor for this discrepancy was unnecessary.

In the following pages the status of the mountain pine beetle is discussed in more detail.

Skull Creek - Quartz Creek

No mountain pine beetle infestation was noted on these two large drainages. Trees off the strip were even examined in the search for any attacks or broods of the mountain pine beetle for 1948, without success. Furthermore, none of the red-top trees examined showed any attacks by the mountain pine beetle in 1947. Data for the area is as follows:

<u>Skull Creek - Quartz Creek Unit</u>	<u>Acreage 32,640</u>
Acres of sample	243
Estimated number of infested trees	None

The two members of the crew detailed to this back area examination reported defoliation of about 1½ feet of the top of white-bark pine between Wallow Mountain and Collins Creek on trail 290. Their observance of moths resembling the pine butterfly may or may not indicate the insect responsible for the defoliation.

Between Skull Creek and Canyon Ranger Station, along the Clearwater River, many white pine, from reproduction to mature trees, showed discoloration of foliage due to a needle cast.

Color varied from grey-green to yellow, frequently with only individual needles in a group affected. Foliage loss was insufficient to cause death of any of the trees affected

Canyon Unit

Strip run on the unit supplemented by a comprehensive view of the area failed to reveal any evidence of losses due to the mountain pine beetle. Data for the area is as follows:

<u>Canyon Creek Unit</u>	<u>Acreage 14,500</u>
Acres of sample	78
Estimated number of infested trees	None

Sheep Mountain Unit

The national forest timber adjoining the logging area supports an infestation of doubtful status. Total infestation in windfalls, trees and stubs amounts to .72 of a tree per acre. This amount of infestation would be a potentially serious threat under ordinary conditions. However, logging alongside the area concerned, may serve to absorb most of the insects emerging from the infested material. The succeeding tabulation gives the data for the unit:

<u>Sheep Mountain Unit</u>	<u>Acreage 2880</u>
Acres of sample	19.5
Estimated infested material per acre	.72
Estimated infested material	2068
Windfalls	1477
Standing trees	443
Stubs	148

This unit should be examined for a possible increase in 1949.

Tepes Creek Unit

No infestation of any consequence was found on this unit. Data for the unit is as follows:

Tepae Creek UnitAcreage 1280

Acres of sample	35.6
Estimated infested trees per acre	.026
Estimated infested material	33
Windfalls:	33

Dead Horse Unit

The infestation on this unit is sufficient to warrant concern under ordinary circumstances. Logging operations on the western edge of the unit may result in the absorption of emerging brood thus removing more or less of the broods from the area when the logs are hauled to the mill. Data for the unit follows:

Dead Horse UnitAcreage 1280

Acres of sample	39.3
Estimated infested trees per acre	.13
Estimated infested trees on unit	158

This unit should be examined again in 1949 for any possible increase in infestation.

Cedars Unit

White pine on this unit is in the best shape observed since the writer has been conducting these surveys. The light infestation encountered was 70 percent in windfalls and the remainder in standing trees. More attacks could be expected subsequent to the survey in 1948 because there were still many callow adults in trees and windfalls that had been attacked in 1947. Data for the area is as follows:

Cedars UnitAcreage 9.900

Acres of sample	199.1
Estimated infested material per acre	.050
Estimated infested material on unit	495
Windfalls	349
Standing trees:	146

This area should be examined again in 1949 to determine any possible increase in infestation.

Oragrande Unit

The Oxford area of this unit is practically without any

infestation of the mountain pine beetles in either lodgepole or western white pine.

On Orogrande Creek drainage activity of the mountain pine beetle is largely concentrated in windfalls with only half as many trees attacked. Windthrow occurred in late April or early May and at the time of the survey in early August some of the windfalls were still unattacked by the mountain pine beetle. More "fill in" of trees and windfalls already attacked and the attack of more trees could be expected subsequent to the survey as there were still some broods in trees attacked in 1947. In general, windfalls were lightly attacked and standing trees heavily attacked. Data for the unit is as follows:

<u>Orogrande Unit</u>		<u>Acreage 24,000</u>
Acres of sample		300.4
Infested material per acre		.107
Infested material on unit		2568
Trees	792	
Windfalls	1,680	
Stubs	96	

The possibility of windfalls proving such excellent host material for the mountain pine beetle as to promote a decided increase in infestation, makes it advisable to examine this unit again in 1949.